WHAT IS CLAIMED IS:

1. An optical recording medium, comprising:

an optical recording layer;

a separating layer formed on a reproducing light incident side of the optical recording layer; and

a phase-change reproducing layer formed on the reproducing light incident side of the separating layer, absorbance of which phase-change reproducing layer is changed depending on whether a state of the optical recording layer is a recording mark or a space,

wherein a transfer portion to which a state of the optical recording layer is transferred is formed in a portion having high absorbance of the phase-change reproducing layer by irradiation with reproducing light, while a portion of the phase-change reproducing layer other than the transfer portion is kept in a state optically differing from the transfer portion.

2. The optical recording medium according to claim 1, wherein the transfer portion is magnified as compared with a recording mark in the optical recording layer.

3. The optical recording medium according to claim 1, wherein the optical recording layer is a phase-change optical recording layer.

4. An optical recording medium, comprising:

an optical recording layer;

a separating layer formed on a reproducing light

incident side of the optical recording layer; and

a phase-change reproducing layer formed on the reproducing light incident side of the separating layer, absorbance of which phase-change reproducing layer is changed depending on whether a state of the optical recording layer is a recording mark or a space,

wherein a reverse transfer portion to which a state of the optical recording layer is reversely transferred is formed in a portion having high absorbance of the phase-change reproducing layer by irradiation with reproducing light, while a portion of the reproducing layer other than the reverse transfer portion is kept in a state optically differing from the reverse transfer portion.

5. The optical recording medium according to claim 4, wherein the reverse transfer portion is magnified as compared with a recording mark in the optical recording layer.

6. The optical recording medium according to claim 4, wherein the optical recording layer is a phase-change optical recording layer.

7. An optical recording medium, comprising:

a transparent substrate having a pit train as an optical recording layer formed on a surface thereof; and

a phase-change reproducing layer formed on the transparent substrate, absorbance of which phase-change

reproducing layer is changed depending on whether a state of the optical recording layer is a recording mark or a space,

wherein a transfer portion to which a state of the optical recording layer is transferred is formed in a portion having high absorbance of the phase-change reproducing layer by irradiation with reproducing light, while a portion of the phase-change reproducing layer other than the transfer portion is kept in a state optically differing from the transfer portion.

8. The optical recording medium according to claim 7, wherein the transfer portion is magnified as compared with a recording mark of the surface region of the transparent substrate.

9. An optical recording medium, comprising:

a transparent substrate having a pit train as an optical recording layer formed on a surface thereof; and

a phase-change reproducing layer formed on the transparent substrate, absorbance of which phase-change reproducing layer is changed depending on whether a state of the optical recording layer is a recording mark or a space,

wherein a reverse transfer portion to which a state of the optical recording layer is reversely transferred is formed in a portion having high absorbance of the phase-change reproducing layer by

irradiation with reproducing light, while a portion of the reproducing layer other than the reverse transfer portion is kept in a state optically differing from the reverse transfer portion.

10. The optical recording medium according to claim 9, wherein the reverse transfer portion is magnified as compared with a recording mark of the surface region of the transparent substrate.

11. An optical recording-reproducing method, comprising:

irradiating the optical recording medium according to claim 1 with reproducing light;

transferring a recording mark or a space of the recording layer to the phase-change reproducing layer heated to a temperature not lower than a melting point or a crystallizing temperature by irradiation with the reproducing light to form a transfer portion; and

detecting reflected light from the transfer portion to perform reproduction.

12. The method according to claim 11, further comprising:

irradiating the optical recording medium with recording light; and

forming in the recording layer a train of recording marks each having a size smaller than optical resolution determined by a wavelength and a numerical aperture of an objective lens.

13. The method according to claim 11, further comprising: restoring the reproducing layer having the transfer portion formed by irradiation with the reproducing light to a state before the transfer.

14. The method according to claim 11,

wherein the optical recording medium comprises a substrate having a pit train as a header section formed on a surface thereof and the optical recording layer used as a data section is a phase-change recording layer or a write-once recording layer,

and wherein, when the optical recording medium is reproduced, read power for the header section and read power for the data section are set at different values.

15. The method according to claim 11, wherein a modulation scheme and a write strategy are set such that a shortest mark length is made longer than a shortest space length, or a shortest mark length is made shorter than a shortest space length.

16. An optical recording-reproducing method, comprising:

irradiating the optical recording medium according to claim 4 with reproducing light;

reversely transferring a recording mark or a space of the recording layer to the phase-change reproducing layer heated to a temperature not lower than a melting point or a crystallizing temperature by irradiation with the reproducing light to form a reverse transfer

portion; and

detecting reflected light from the reverse transfer portion to perform reproduction.

17. The method according to claim 16, further comprising:

irradiating the optical recording medium with recording light; and

forming in the recording layer a train of recording marks each having a size smaller than optical resolution determined by a wavelength and a numerical aperture of an objective lens.

18. The method according to claim 16, further comprising: restoring the reproducing layer having the reverse transfer portion formed by irradiation with the reproducing light to a state before the transfer.

19. The method according to claim 16,

wherein the optical recording medium comprises a substrate having a pit train as a header section formed on a surface thereof and the optical recording layer used as a data section is a phase-change recording layer or a write-once recording layer,

and wherein, when the optical recording medium is reproduced, read power for the header section and read power for the data section are set at different values.

20. The method according to claim 16, wherein a modulation scheme and a write strategy are set such that a shortest mark length is made longer than a

shortest space length, or a shortest mark length is made shorter than a shortest space length.

21. An optical recording-reproducing method, comprising:

irradiating the optical recording medium according to claim 7 with reproducing light;

transferring a recording mark or a space of the recording layer to the phase-change reproducing layer heated to a temperature not lower than a melting point, or a crystallizing temperature by irradiation with the reproducing light to form a transfer portion; and

detecting reflected light from the transfer portion to perform reproduction.

22. An optical recording-reproducing method, comprising:

irradiating the optical recording medium according to claim 9 with reproducing light;

reversely transferring a recording mark or a space of the recording layer to the phase-change reproducing layer heated to a temperature not lower than a melting point or a crystallizing temperature by irradiation with the reproducing light to form a reverse transfer portion; and

detecting reflected light from the reverse transfer portion to perform reproduction.